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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/521,370	01/12/2005	Yoshio Kajiya	4402.P0666US	2268

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EXAMINER	
ECHELMEYER, ALIX ELIZABETH	
ART UNIT	**PAPER NUMBER**
1795	
MAIL DATE	**DELIVERY MODE**
11/14/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/521,370	KAJIYA ET AL.	
	Examiner	Art Unit	
	Alix Elizabeth Echelmeyer	1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 August 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response

1. This Office Action is in response to the arguments filed August 24, 2007. Claims 1-8 are pending and are rejected finally for the reasons given below.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-5 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujino et al. (US Pre-Grant Publication 2002/0197202) in view of Horowitz et al. (US Patent 4,101,716).

Fujino et al. teach a process for forming the active material for a positive electrode for a secondary battery (abstract).

Fujino et al. teach that the process involves the steps of:

a. Providing a manganese oxide ([0028]).

b. Adding lithium ions to the manganese oxide ([0034]).

c. Putting the lithium manganese complex oxide in an alkali solution and coating the particles with cobalt from cobalt sulfate in solution ([0041], [0076]).

d. Drying the mixture ([0042]).

Regarding claims 1-3, 5 and 8, the material that is produced by this process is a manganese oxide coated with cobalt and containing lithium.

Fujino et al. fail to teach the process in the exact order claimed in the instant invention. It would have been obvious to one having ordinary skill in the art at the time of the invention to change the sequence of adding ingredients in order to facilitate production. It has been held that it involve only routine skill in the art to select any order of performing process steps such as mixing ingredients. MPEP 2144.04 (IV C).

Fujino et al. fail to teach firing the dried mixture.

Horowitz et al. teach a firing process that removes impurities in mixed metal oxides (column 5 lines 1-6, 11-17).

It would be desirable to add a firing step as taught by Horowitz et al. to the method of Fujino et al. in order to remove impurities from the mixed metal oxide.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to add a firing step as taught by Horowitz et al. to the method of Fujino et al. in order to remove impurities from the mixed metal oxide.

4. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujino et al. in view of Horowitz et al. as applied to claim 1 above, and further in view of Kumta et al. (US Patent 6,017,654).

The teachings of Fujino et al. and Horowitz et al. as discussed above are incorporated herein.

Fujino et al. in view of Horowitz et al. teach the disclosed method but fail to teach a cobalt oxide precipitated with Mn, Ni, Al, Mg or Ti.

As for claim 6, Kumta et al. teach a lithium cobalt oxide doped with magnesium (abstract, column 3 lines 46-65).

Regarding claim 7, teach a lithium nickel oxide doped with, for example, magnesium (abstract; column 4 lines 40-41).

Kumta et al. further teach that these materials improve cyclability and provide high voltage capacity as cathodes in lithium-ion secondary cells (abstract).

It would be desirable to use the materials of Kumta et al. in the process of Fujino et al. in view of Horowitz et al. since the end product would improve cyclability and provide high voltage capacity in cathodes in lithium-ion secondary cells.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to use the materials of Kumta et al. in the process of Fujino et al. in view of Horowitz et al. since the end product would improve cyclability and provide high voltage capacity in cathodes in lithium-ion secondary cells.

Response to Arguments

5. Applicant's arguments filed August 24, 2007 have been fully considered but they are not persuasive. On page 3 in the second full paragraph, Applicant argues that Fujino et al. teach an anode material. This is false. Fujino et al. teach a *positive* electrode active material. The *cathode* is the positive electrode.

On the top of page 4, Applicant argues that the reason for firing in the instant invention is different from the motivation provided in the rejection over Fujita et al. in view of Horowitz et al. In response to applicant's argument, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alix Elizabeth Echelmeyer whose telephone number is 571-272-1101. The examiner can normally be reached on Mon-Fri 7-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Susy N. Tsang-Foster can be reached on 571-272-1293. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Alix Elizabeth Echelmeyer
Examiner
Art Unit 1795

aee

SUSY TSANG-FOSTER
SUPERVISORY PATENT EXAMINER